

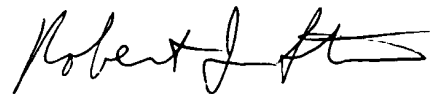
## REMARKS

The claims are amended to remove the unnecessary recitations of a plasma source and a pump. These components can be external to the plasma chamber.

The term "channel" is added to claims 8 and 13 merely to avoid confusion between the apertures of the channel and the gas inlet and exhaust apertures of the chamber.

A marked up copy of the amended claims appears on the following pages of this amendment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert J. Stern", with a stylized flourish at the end.

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1 1. (amended) A plasma chamber comprising:

2 a vacuum chamber enclosure enclosing a chamber interior;

3 a gas inlet aperture [for admitting a] through which gas can be admitted into the chamber  
4 interior;

5 [a plasma excitation power source for coupling energy to the gas so as to excite at least a  
6 portion of the gas to produce a plasma within the chamber interior;]

7 an exhaust [pump] aperture through which gas can be exhausted from the chamber interior;

8 an exhaust channel extending between the chamber interior and the exhaust pump so as to  
9 provide a path for gas flow from the chamber interior to the exhaust [pump] aperture;

10 a deflector positioned within the exhaust channel so as to create turbulence in said gas flow  
11 through the exhaust channel; and

12 a magnet system having north and south magnetic poles positioned adjacent the deflector.

1 2. (amended) A plasma chamber according to claim 1, wherein the magnet system produces a  
2 magnetic field strong enough to block [said] plasma from extending from the chamber interior to the  
3 exhaust [pump] aperture.

1 7. (amended) A plasma chamber comprising:

2 a vacuum chamber enclosure enclosing a chamber interior;

3 a gas inlet aperture [for admitting a] through which gas can be admitted into the chamber  
4 interior;

5 [a plasma excitation power source for coupling energy to the gas so as to excite at least a  
6 portion of the gas to produce a plasma within the chamber interior;]

7 an exhaust [pump] aperture through which gas can be exhausted from the chamber interior;

8 an exhaust channel extending between the chamber interior and the exhaust [pump] aperture so  
9 as to provide a path for gas flow from the chamber interior to the exhaust [pump] aperture;

10 a deflector positioned within the exhaust channel so as to transversely deflect a substantial  
11 portion of said gas flow through the exhaust channel; and

12 a magnet system having north and south magnetic poles positioned adjacent the deflector.

1 8. (amended) A plasma chamber according to claim 7, wherein:

2 the exhaust channel comprises

3 [an] a channel inlet aperture in fluid communication with the chamber interior,

4 [an] a channel outlet aperture in fluid communication with the [pump] exhaust aperture,

5 and

6 at least a first wall that extends between the channel inlet aperture and the channel outlet  
7 aperture;

8 the deflector comprises a protrusion extending from the first wall of the exhaust channel into  
9 the exhaust channel so as to reduce the transverse width of the exhaust channel adjacent the protrusion;

10 and

11 the north and south poles of the magnet system are positioned within the protrusion.

1 9. (amended) A plasma chamber according to claim 8, wherein:

2 [the pump produces a flow of gas from the chamber interior, through a gas flow path within  
3 the exhaust channel, and to the pump; and]

4 the north and south magnetic poles are spaced apart along said gas flow path of the exhaust  
5 channel.

1 10. (amended) A plasma chamber according to claim 8, wherein the magnet system produces a  
2 magnetic field strong enough to block [said] plasma from extending from the chamber interior through  
3 the exhaust channel beyond the protrusion.

1 13. (amended) A plasma chamber, comprising:

2 a vacuum chamber enclosure enclosing a chamber interior;

3 a gas inlet aperture [for admitting a] through which gas can be admitted into the chamber  
4 interior;

5 [a plasma excitation power source for coupling energy to the gas so as to excite at least a  
6 portion of the gas to produce a plasma within the chamber interior;]

7 an exhaust [pump] aperture through which gas can be exhausted from the chamber interior;

8 an exhaust channel including

9 [an] a channel inlet aperture in fluid communication with the chamber interior,

10 [an] a channel outlet aperture in fluid communication with the [pump] exhaust aperture,

11 and

12 at least a first wall that extends between the channel inlet aperture and the channel outlet  
13 aperture; and

14 a magnet system having north and south magnetic poles positioned adjacent the first wall;

15 wherein the plasma chamber does not include any other magnet adjacent said magnet system.

1 14. (amended) A plasma chamber according to claim 13, wherein:

2 [the pump produces a flow of gas from the chamber interior, through a gas flow path within  
3 the exhaust channel, and to the pump; and]

4 the north and south magnetic poles are spaced apart along said gas flow path of the exhaust.

1 15. (amended) A plasma chamber according to claim 13, wherein:

2 the north and south magnetic poles are adjacent a first area of the first wall; and

3 the magnet system produces a magnetic field strong enough to block [said] plasma from  
4 extending from the chamber interior through the exhaust channel beyond said first area.

1 26. (amended) A method of preventing [the] plasma within a plasma chamber from extending  
2 completely through the exhaust channel of the chamber [to the exhaust pump], comprising the steps of:

3 providing a vacuum chamber enclosure that encloses a chamber interior;

4 admitting a gas into the chamber interior;

5 [coupling energy to the gas so as to excite at least a portion of the gas to produce a plasma  
6 within the chamber interior;]

7 providing an exhaust channel extending between the chamber interior and an exhaust [pump]  
8 aperture so as to provide a path for gas flow from the chamber interior to the exhaust [pump] aperture;

9 positioning a deflector within the exhaust channel so as to create turbulence in said gas flow  
10 through the exhaust channel; and

11 creating a magnet field within the exhaust channel having a substantial component that is  
12 transverse to said gas flow path.

1 27. (amended) A method according to claim 26, wherein the creating step comprises:

2 creating said magnetic field with sufficient strength to block [said] plasma from extending from  
3 the chamber interior to the exhaust [pump] aperture.